

Should Architecture's Practice Be Controlled By An Industrial Code?

(1) WHY A CODE? Because, speaking broadly, but without equivocation, there had grown up in all industry a system amounting to dishonest, although sometimes legal, trade practice. This condition had evolved to an exclusively intolerable state. The building industry has been no exception to the general rule. Perhaps it was even one of the larger offenders. This is no time to throw stones, else there would be much cracked glass. Why should the pot call the kettle black?

The practice of architecture is so completely interwoven into the building industry that it cannot be segregated from the rest without destructive effect. The fair competitive program of the building business is founded on and built around impartial, competent, independently administered plans and specifications. Most of the unfair practice of the industry has its root in competitor prepared trick plans and specifications, designed to favor their makers above other competitors.

The building game is so technical and its players have such widely diversified interests that it must have an expert disinterested umpire. Constant and long continued practice has assigned that job to the architect. Therefore, the architect must be in any program designed to secure fair competition in the building industry.

(2) WHO PREPARES THE CODE? The administration of the code is under the guidance of General Johnson, who is assisted by an Advisory Board consisting of prominent citizens. The officer in direct charge of the correlation of the building industry codes is Malcolm Muir, and he has as his assistant Mr. Malcolm Pirnie. Each craft group of the industry is represented by a code committee which acts as a clearing-house for the views of the various groups of members of its particular section. This central committee has the task of preparing the code for its particular section and presenting same before Mr. Muir and his associates for hearing.

Hearings before Government authorities develop criticisms from other sections of the industry, from the Government and from members of the particular section whose regulation is under discussion. These are referred back to the sectional committee to the end that, if possible, they may be reconciled and the code revised so as to be more accurately expressive of the desires of the group represented and to be more nearly in accord with the Government program.

After the different sections of an industry have filed their codes and they have been revised and re-revised, they are all written together into one code, so that they become a part of a code for the entire industry. In this re-writing, those clauses which have to do with the industry as a whole are segregated from those clauses which specifically apply to a given branch of the industry, so as to make the code for the industry as simple in application as is practical.

A joint committee of the Chicago Chapter, A. I. A. and the Illinois Society of Architects has cooperated with the general committee at Washington. This committee is made up as follows. For the Chapter: Richard E. Schmidt, Elmer C. Jensen, George Carr, Clarence Farrier, J. C. Bollenbacher, Secretary. For the Society: M. C. Chatten, Henry Schlacks, Howard White, John Holabird, E. S. Hall, Chairman.

When the code finally passes Mr. Muir and the Advisory Committee, the Director, General Johnson, submits same with recommendations to the President for his signature of approval. All codes before they become finally effective must bear the President's signature.

(3) WHAT DOES THE CODE CONTAIN? The code contains a definition of the term "architect," lays down rules for the relationship of the architect to the building program, definitely requiring that the architect shall be honest, competent, fairly judicial, and that he must have no prejudicial interest in building material or contracting.

Concerning his employees, a minimum wage is fixed and a maximum number of hours established at regular pay, with an increased wage for overtime work.

Competition between architects is limited to minimum fees, these fees being calculated to enable the architect to pay his employees a living wage, pay for material and consulting service required and leaving something in the way of remuneration to the architect himself. He is not permitted to give service, accept rebates, or use plans and specifications prepared by contractors or material men. He must so handle his business in the taking of bids as to guarantee fair practice between competing contractors,—quality, quantity, skill and responsibility considered.

His remuneration for service shall come from the client and shall not be tainted with any influence which might affect his fair judicial decision in matters submitted to him in the discharge of his official duties.

As umpire in disputes between contractors or between contractor and the owner, he must act with expert skill and fairness to all concerned.

It is expected that the administration of the code will provide for a building industry committee, with sub-committees affecting each of the several branches of the code. The cost of administration will be charged to those affected by administration. Architects will be taxed individually and in proportion to the volume of their business for the support of the code. Violation of the code will be a legal offense, punishable by law. In order to insure compliance with the code, the individual's and firm's books will be more or less subject to Government inspection. Practically, the general code scheme takes the Government into firm but friendly partnership.

Low Cost Housing Progress In Illinois

Federal funds are willing, that is, the people will loan the Federal Government at around 3% and the Government will in turn loan to "limited dividend corporations" for low cost housing and slum clearance at 4% up to 80% or 85% of the cost of a project, but, apparently, none of the same capitalists or others are willing to honestly supply the other 15% or 20% at an arbitrary limit of returns, if any, and take all the risk of loss.

Such Federal funds have been available during most of the past two years, first in a very restricted form under the R. F. C., and since June this year in a less restricted but more academically red-taped form under the P. W. A. but to date no tentative allotments have been heard of in Illinois and not a dollar has been expended (except on said red-tape) anywhere in the nation.

This paralysis in Federal funds, like the present paralysis in common capital for common welfare, is doubtless due to distrust and fear born of a babble of tongues and institutional fetiches built up by our late capital system and recently discovered by the trusting people to be deceptive, misleading and altogether rotten.

What we excused as self-interest we later found to be mostly greed, its deadly opposite. We loaned our savings to banks and took a note, but they persistently called it a deposit slip. When we took a note or a bond from the system, they said they sold it to us until we believed we were *buying* something instead of *loaning* funds. We looked closely at the elaborate language of the "deposit slip" or the "bond" and forgot to examine the "security."

Even the language of the system was crooked. The State said, through its securities commission, "first mortgage bonds" aggregated not more than 50% of the security value. Mortgage bankers, conniving with appraisers and officials, knew they were often 100% or more. We supposed our Governments examined our banks, bonds and corporations as to integrity and worth. We were deceived by the Government we relied on and the agencies we trusted.

We assumed corporations were a form of financial cooperation supervised and regulated by State and Federal officers. We discovered they could be a form for chicanery and exploitation. Bonds and stocks came to be a kind of lottery ticket; supervision and regulation to be infested with political spoils and graft, and the whole system to be, to the extent of thousands of millions, worse than highway robbery, for, it seems, there is no recourse. The thief is hidden beneath the verbiage of the institution and the mountainous illiterateness of laws and the word-bound confusion of the courts. Even those who got the loot deceived themselves. They dragged down Fidelity, Trust, Confidence and Cooperation into the gutter and trampled Faith and Hope beneath it.

In the midst of such chaos our beneficent Federal Government, hoping to start the restoration of the great building industry, offered funds to "limited dividend corporations regulated and supervised by state or municipal law," as if the legislators were not aware of the distrust discovered in such terms. Moreover, Illinois spent a year devising a housing law designed to supervise, control, regulate, limit, qualify and charge corporations one-half of one percent of cost if they might build and mortgage "low cost housing for low wage earners," seemingly unaware that extra costs and

plenary regulations by political appointees is not encouragement, and that such words as *supervise*, *regulate* and *control* in conjunction with political office have lost their proverbial meanings and are anathema to trust and confidence.

The NIRA repealed that series of erudite errors by substituting much more liberal verbiage but retained "limited dividends" and "corporations," both of which are badly tainted by the late panics. For "regulation by law" it substitutes a Housing Division of the P. W. A. But as in all governmental efforts to supersede the legitimate functions of the private people, a delegation of official action to private practitioners and so-called experts is first in order. These experts are most reputable, tried and tested in the architectural field, but being government agents they are bound to establish rules, red-tape and ruts to run in, made of old terms and concepts, before they discover the problems to be new and old rules tabu. Likewise the vacant land owner, the old-fashioned manipulator, the surviving promoters, the entrenched favorites, inexperienced theorists and social nitwits rush to the seat of authority for spoils, favors, entertainment, or exploitation. They becloud the purpose of the proceedings and crowd out the careful and competent, unacquainted with ballyhoo and pull.

All these things have occurred and are occurring in regard to housing in Illinois. There is no indication that officials or others realize what "low cost housing for low wage earners" means. The announced projects seem to expect to reach as low as \$8 to \$11 a room a month, or \$32 to \$44 a month per apartment. That rate requires a steady wage of \$32 to \$44 a week at least, a figure our high scale building mechanics could hardly reach in normal times, not to mention low wage earners.

The latest news is a hint or threat that the Administration will embark on house building directly and rent or sell (?) the completed projects. Those who remember the war housing experience and the cost of any building any division of our Government builds and supervises, not to mention Chicago school buildings, will not be heartened by Government built housing schemes.

Still there is hope that Harold L. Ickes, Public Works Administrator, will be able to throw off the great load of political indirection heaped upon him, sweep out the chaos and finally drive on and deliver real low cost housing and slum clearance.

I am convinced by experience it can be done properly with present resources at the rate of \$4.50 to \$6.00 a room in most cities, by discarding discredited methods and operating on real fidelity and trust.

Henry K. Holsman.

Paint Progress

White lead ground in linseed oil has been the principal house paint since Dutch Process was discovered about the year 1520. Linseed oil in the film is easily affected by water, and sulphur gases in the atmosphere cause darkening in the whites and muddiness in colors. This is due to chemical action, and the original color cannot be restored by washing.

Thermolyzed Tung Oil is infinitely more waterproof than linseed oil. Tung Oil is not affected by fumes and has proven its ability to stay in a dried film permanently instead of shrinking out like linseed oil.

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Editor Monthly Bulletin

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WHAT SHALL OUR ATTITUDE BE TOWARD

THE CODE? Architects like other people must, if they expect to get any good out of the plan, give to it some sacrifice. The misunderstanding of the public has been one of our greatest handicaps. The abuses which have grown up in the building industry under the name of architecture are many and aggravating. The practitioners of architecture as a profession have never enjoyed emoluments appropriate to the required natural ability, learning and experience, and consistent with the responsibility which they are compelled to assume.

The purpose of the National Recovery Act and the expressed desire of the President is to eliminate tricky competitive methods. By his Code plan he expects to accomplish this result. Whether we can or cannot entirely agree with certain features of the President's plan is not so very material; we must agree with his avowed purpose. The architect's work deals largely with the intangible. That is why it is so difficult for a materialistic public to appreciate the value of his invisible services.

A pernicious practice which has about reached the source stage, pervades to a more or less extent the entire building industry. It is popularly diagnosed as "Free Plans." No truer statement was ever made than "You pay for an architect whether or not you use one."

The only logical way to secure fair competition is to have the plans and specifications made by qualified persons, independent of contractors and material men, to receive the bids of contractors on exactly the same requirements and competently consider award on the basis of price, capability, responsibility and the peculiar skill of each contractor considered.

It is hoped that the NRA Code for the building industry will eliminate the evils and again establish the integrity of the industry as well as make possible a decent livelihood for all those engaged therein. The Code is still in the birthing. The final approval of the construction industry code will necessarily force a closer cooperative affiliation among all members of the architectural profession.

The Architects Sales Bureau, under the management of Gerald Bradbury, has no connection whatsoever with the Illinois Society of Architects and has no authority to represent the Society or to make any statements for it.

Individuals and concerns who are approached for contributions to any so-called architects' or draftsmen's relief funds should communicate with the office of the Society where information will be gladly furnished regarding any measures which the Society may sponsor.

In "American Architect" for September, Editor Betts presents a carefully thought out plan for millions of jobs through revival of building. He recommends that the Administration at the earliest possible time organize a Building Construction Division, possibly as a part of the NRA, first, to stimulate private construction that was stopped or retarded by the depression; second, to arouse national consciousness to the importance of building construction as a basic economic factor in recovery; third, to remove existing obstacles to building activity by using the best minds of the nation on the manifold problems involved.

Private building construction is the major product of the industry. Agriculture is represented by a cabinet officer and an important department. The building industry needs and warrants the guidance and aid of a strong, Federal organization. The function of the suggested Building Construction Division is the furtherance of the resumption of building and the restoration of confidence of potential owners and building investors.

Desire to build has not been changed by the depression. It has merely been temporarily frustrated. The machinery for a Building Construction Division initiated by the Federal Government is already at hand. If the power of this agency is applied, it will permit the building industry to contribute as can no other to the welfare and early economic recovery of the United States.

Mr. Betts' views deserve the most careful consideration of the Federal Authorities.

The Bulletin is pleased to announce a legal question and answer service, without charge, for publication in the Bulletin. Questions must be short, on the order of those printed in the June-July Bulletin. Send questions to the Bulletin editor. Mr. A. H. Marshall, Attorney for the Illinois Society of Architects, will supply the answers.

The following comparisons of nationwide building construction for the first six months of 1931, 1932 and 1933 relate the rapid decline of building construction the last three years. In 1931, the total was \$1,792,494,700; in 1932, \$667,079,700, and in 1933 it was \$433,026,000. For the entire year of 1931 it aggregated three billion dollars. In 1932 it was \$1,333,330,000. Much of the construction work done in 1931 and 1932 was of a public nature.

"A banker is a man who offers you the loan of an umbrella when the sun is shining, and wants it back the minute it begins to rain."—Ed Wynn.

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The whole idea of the scheme is to prevent cheating in competition. While minimum fees for service are required, they are definitely and distinctly understood to be minimum fees, with the definite understanding that high reputation, unusual skill and increased demand justify higher fees. It is probable that the administration of the code, so far as it pertains to architects, will be under the direct supervision of an Architectural Advisory Committee, consisting of a certain number of architects who are members of the American Institute of Architects and certain other architects who would properly represent the architects who belong to independent associations or belong to no organization whatsoever.

We are not permitted to make public the exact text of the code due to the fact that the code as it now stands is in a tentative state, subject to amendments from day to day as criticisms, suggestions, hearings and conclusions develop.

(4) WHAT DOES THE CODE MEAN TO THE ARCHITECT? It means a definite legal recognition of his proper place in the building industry, an attempt to give him a fair remuneration for the services rendered, and to prevent cut-throat competitive methods. It involves the annoyance of a public look into what he has deemed to be his private affairs. It means the possibility of organized employes, provides against discrimination between organized and unorganized employes, some more expense for doing business, and presumably a reduction of losses to the minimum.

Since arrangements of this kind involve collective bargaining and delegated group spokesmanship, it becomes highly desirable that all architects identify themselves with membership in some architectural society which best expresses their views.

(5) WHAT IS THE PRESENT STATUS OF THE CODE? The code committee of the American Institute of Architects has been duly authorized by all of the chapters of the Institute and all of the state societies to represent them in negotiations looking towards the adoption of an architectural code.

A tentative code has been prepared and has gone through several revisions. The central committee has had criticism and suggestion concerning its work from the various architectural societies and individual architects. We owe a great debt of gratitude to the untiring efforts of this committee. Work of this sort involves the reconciling of many diversified interests. The harmonizing of differences always means compromises. No one gets exactly what he wants. When the code is finally perfected, made a part of the general building code, approved and finally receives the signature of the President, it will still be an imperfect code and must contain provisions for elasticity in administration, subject to the good judgment of appropriate executive authority.

Emery Stanford Hall.

Coming Joint Meetings

The next meeting of the Illinois Society of Architects will be held jointly with that of the Chicago Chapter, A. I. A. on Tuesday, November 21, at the Architects Club of Chicago. The fourth Tuesday of the month for the Illinois Society and the second for the Chapter are thus abandoned and the merged meeting takes place on the third Tuesday of the month.

The subject of this November meeting will be "Housing and its Ramifications." Speakers for the meeting will be announced later.

Jacob L. Crane, city planner, Chicago, has been appointed an associate in the Tennessee Valley Authority function in the Federal Program for that territory. His work has to do with the development of a regional plan for the Tennessee Valley, a plan that may prove epoch-making.

A Monumental Publication

Early in October there appeared in the Chicago Public Library and in the endowed libraries of the city, a sumptuous monograph in two volumes entitled "The Architectural Works of Graham, Anderson, Probst & White, Chicago, and Their Predecessors, D. H. Burnham & Company and Graham, Burnham & Company. Each of these two volumes measures 12 by 16½ inches, about 4½ inches thick, and are privately published for Graham, Anderson, Probst & White by B. T. Batsford, Ltd., London, England. The binding is of crushed levant morocco. The edition consists of three hundred numbered copies for private distribution. From the foreword, written by Ernest R. Graham, one learns that from the founding of D. H. Burnham & Company in 1894 through to 1933, the expenditure in buildings and monuments executed by the three firms was upwards of seven hundred million dollars. The chronology is: D. H. Burnham & Company, 1894-1912; Graham, Burnham & Company, 1912-1917; Graham, Anderson, Probst & White, 1917—.

Volume I comprises museums, auditoriums, railway terminals, public buildings, colleges, libraries, department stores, hotels, power plants, wholesale warehouses, manufacturing plant, a memorial, a hospital, an observatory. Volume II is devoted to bank and office buildings. The number of photographic reproductions is vast, though renderings, plans and sections are also included. The presswork and materials are of the finest. The letter-press is in Baskerville type, printed at Westminster Press on English handmade rag paper. Photogravure plates are printed by hand. The renderings are by Christian A. Begge, Alfred Shaw, Hugh Ferriss, Rolfe Renau and Marcel Schuetter. The production of this monumental monograph was begun in 1924 and completed in 1933.

Somebody in Chicago sent me a book full of photographs of the place. There was the biggest building in the world, and the biggest lighting fixture in the world, and the longest hairdressing salon in the world—worked only by blondes. I can perfectly well believe it. All the buildings looked big to me. They stick up in the air rather. One rather odd one looked like a dozen pairs of suspenders bending over a wash tub, as if their owners had stepped out for lunch and left them standing. And another was surmounted by a faceless statue, because the thing was so far away in the air that nobody can see whether it's got any features or not and the sculptor took the sensible step of leaving it blank.

Sir Edward Lutyens startled the architects of this country by designing a building with a window that covered three floors, for some makers of lavatory seats. What we want, as it seems to me, is a window that covers thirty. It wouldn't be "functional" but functionalism in art is a fetish that has led us to worship at the shrine of that peculiar Indian goddess with bunches of breasts. Let the Chicagoans imagine themselves having a manicure from a bigger and better blonde with fifty-two eyes. Far, far better let the lady be faceless. —Anthony Gibbs, London.

Wood Fins on the New Forest Products Laboratory Building

By L. V. Teesdale, Senior Engineer, Forest Products Laboratory, 'Forest Service,
U. S. Department of Agriculture

The four questions herein answered by Mr. Teesdale were put to the Forest Products Laboratory by the Bulletin after publication of their building in the Architectural Forum and after a personal visit to Madison.—Editor.

Since the description of the Forest Products Laboratory was published in the August number of the *Architectural Forum*, several questions of interest have arisen, particularly with reference to the wood fins.

The building, which was designed by Holabird and Root, is a U-shaped structure five stories high on the side and six on the front, with set-backs at both the first and second floors. The set-backs are so proportioned as to give a pleasing horizontal effect to the mass, and the plane surfaces are broken with blade-like fins spaced four feet apart across each face of the building. On the ground floor and first floor, the fins start just below the window sill and return to the wall immediately above the head of the window. Fins on the sides of the building starting at the second floor extend continuously to the head of the fourth floor windows; those on the front extend to the top of the wall and return over the coping.

There are no vertical fins on the corner bays at the second, third, and fourth floors. The windows in these bays have metal sash; all other windows adjacent to fins have double-hung wood sash. Spandrels above the second floor to the top of the fins are also filled with fixed wood sash, and the glass is backed up with a metal plate finished black, so that the effect from the outside is of continuous glass for the full height of the fins.

The fins are $2\frac{1}{2}$ inches wide where they are attached to the frame and taper to $\frac{3}{4}$ inch at the outer edge. On the ground floor they extend out 8 inches from the face of the building, on the first floor 10 inches, and on the upper floors 12 inches. After careful consideration of various materials from which the fins could be constructed, wood was selected because of its economy and low upkeep and because it offered a unique opportunity to demonstrate the suitability of wood in a place where one might naturally expect other materials to appear. The various questions that have arisen as regards this use will be treated in order:

1. Are wood fins durable, and can they be protected against weathering and decay for a reasonable length of time?

The durability of wood varies widely as between species, but there are a number of species that are very resistant to decay and would be suitable for the purpose. Cypress was used, though several other species were permitted in the specification. As sapwood is never to be considered durable, the specification required that the stock be 100 percent heartwood. Proper painting at time of erection and adequate maintenance of the paint coatings will protect the wood from weathering and against rapid moisture content changes. The top of each fin where it returns against the building is flashed with copper. By the means adopted to exclude moisture and prevent weathering, there is every reason to believe these fins will last for 50 years or more without showing evidence either of decay or of distortion on account of weathering.

2. How can the fins be constructed so as to remain straight and true?

First, select species having low shrinkage values, so that there will be a minimum of change in dimension with changes in moisture content. Second, use edge-grain material, since edge-grain stock shrinks and swells less in width than flat-grain stock under identical moisture content changes. In straight-grained material longitudinal shrinkage and swellings are unimportant and need not be considered. Third, use properly seasoned material having a moisture content at the time of erection that is essentially in equilibrium with atmospheric conditions. The specification in this instance required an average moisture content of 11 percent and barred individual pieces varying more than $1\frac{1}{2}$ percent above or below the average. The moisture content of the fins was checked at the planing mill with an electric moisture-meter during manufacture. Fourth, paint the finished assembly with a suitable moisture-resistant coating to retard moisture changes. The fins were primed with aluminum paint and finished with two coats of white lead and oil.

By minimizing the amount of dimensional change through selection of species, using edge-grain stock, suitable seasoning, proper methods of assembly, and finally protection against moisture change, cupping and distortion should be unimportant. Thus far, after two summers and one winter season, these fins are still straight and true, and no evidence of twist or wind can be detected when standing ten feet away from the wall. When sighting up the outer edge of the fins a slight irregularity can be detected on a small number of those that extend through three or four floors, but this condition is known to have existed in most cases at the time of erection. Having passed through two hot-weather seasons successfully, there is no reason to believe that the fins will not continue to remain straight and true indefinitely, provided they are painted at proper intervals.

3. To what degree does the use of the wood fins affect the fire hazard, and to what extent does their use increase the insurance rate?

This question was referred to the Department of Insurance of the State of Wisconsin, and the following quotations express the opinion of H. J. Mortensen, the Commissioner of Insurance:

"The Analytic System for the measurement of the relative fire hazard has not as yet recognized this special feature in building construction to the extent of making a schedule charge therefor. In the few isolated cases which have come to the attention of engineers they have either waived a charge or worked out a charge by method of analysis, which charge would in any case be very slight.

"An exposing blaze could ignite and consume one or more of the fins with no injury to the interior of the risk and with but slight injury, if any, to the exterior. As to an exposure leading to or from adjoining risks, the fins would have no bearing relative to an increase in radiated, absorbed or transmitted exposure charges, or at least insufficient to be noted. While the fins might burn freely being of wood construction and on account of their location, they could not be classed as constituting an active fuel that would serve to communicate the flames to the interior of the risk. Fire resistive buildings usually have window openings protected by wired glass in metal frames. While wired glass in metal frames is not recognized in rate schedules as a complete interior "cut-off," it is approved, however, as a complete cut-off from external sources. At least this department in checking rating surveys has favored and approved any external

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¹ Maintained at Madison, Wis., in cooperation with the University of Wisconsin.

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opening protected in this manner provided there would be sufficient ventilation for outlet of heat to prevent the melting of the glass and thereby rendering the protection as useless.

"Assuming a building of fire resistive construction and having all openings in walls protected in an approved manner, we would say that the additional charge for wood fins would be negligible and that if the wood were chemically treated with a fire retardant the only advantage to be obtained would be in the protection of the fins alone.

"Although the time may arrive when buildings with fins become sufficiently numerous in Wisconsin to be considered in rating schedules as a possible additional hazard worthy of recognition, we would state that without further light on the subject it is quite possible that objection will be raised to an additional charge in Wisconsin for the small hazard involved.

"We have been informed that in some states a charge for fins under the head of exterior attachments has been suggested with a proposed charge up to 5 percent of the basis dependent upon conditions. However, in Wisconsin where we use a "20" table, in most cases there would be a charge hardly sufficient to increase the final rate 1 cent in a fire resistive building."

4. To what degree do the fins affect the light within the building?

Such a question is rather difficult to answer without photometric data, but so far as the Laboratory is concerned there is plenty of light. In fact, all windows are provided with shades or Venetian blinds, and the volume of light is so great that the shades are used even on the north side of the building practically all the time. The fin recesses are comparable with windows having deep reveals, except that there is no lintel of equal depth to cut off light from above.² In such a building as the Laboratory, where 80 percent of the horizontal wall space is window openings, the effect of the fins cannot as a rule be detected. When one shade in an office with two windows is pulled down, thus reducing the window opening to 40 percent of the horizontal wall, the fins do seem to restrict the light to some slight extent.

² These fins set as they are, 4-feet on centers, would be more accurately named blinker-blades.—Ed.

Conference On Preparation For Practice

At the Architects Club of Chicago, a conference of peculiar significance to every one interested in architecture is in session. It is the joint conference on "Preparation for Entrance to Architectural Practice" composed of delegates from the National Council of Architectural Registration Boards, the Association of Collegiate Schools of Architecture, the Beaux Arts Institute of Design, the A. I. A. Committee on Architectural Education, and the A. I. A. Committee on Registration Laws. Separate sessions of these groups begin on October 21, continue through the 22nd, and then convene in joint session on the 23rd. A preliminary organization met in New York last November, but this is the first regular session of this joint organization. It promises much for the cause of architectural education.

Conference—National Assn. For Better Housing

Architects, contractors, city planners, engineers, real estate leaders, representatives of building and loan associations, social service agencies, building material, equipment manufacturers and dealers and governmental agencies from all parts of the United States will gather at the Union League Club Tuesday and Wednesday, October 31st and November 1st to launch a movement to increase home building and put more men back to work. It is to be an open forum discussion of the problems which confront the entire building industry.

"Through our open forum discussions we will be able to get the various viewpoints of all branches of the industry

and allied interests and bring about action which will be a benefit to communities and aid in our drive for prosperity and giving more men jobs," said Mr. Watterfield, General Chairman. "Needs of the consumer will dominate our activities, as we realize the obstacles that have arisen for home owners. We plan to conduct cooperative enterprise among members of our association. It also is proposed to create divisions, committees and local chapters to forward the objects of the association, with clearly defined functions, duties and responsibilities."

Modernizing old buildings and "planned neighborhoods" will be among other matters of vital importance to be discussed at the forum. Speaking of the neighborhood planning, Louis Brownlow, director of Public Administration Clearing House, said: "Houses fit to be called houses are to depend in large measures on properly planned neighborhoods in which these houses are to be built."

The American Institute of Architects has appointed a committee, headed by John C. Bollenbacher, to work with the Association, and John R. Fugard, president of the Illinois Society of Architects, also is taking an active part in the work.

Architects Show In General Exhibits Building

Through the efforts of the Architectural Exhibition League, an exhibition of architects' drawings, also the work of painters and sculptors, is shown in the upper floor of General Exhibits Building at a Century of Progress. Sixteen hundred square feet is given over to this show. As an added attraction there are shown drawings of the Worlds Fair of 1893 and 1933, as well as work done in the leading architectural schools. The League is sponsored by the Architectural Sketch Club, the Illinois Society of Architects and the Chicago Chapter, A. I. A. It is indebted to a number of builders for their financial support.

Burnham Brothers, Inc., announce on September 25, 1933, that Hubert Burnham will continue the practice of architecture in their present quarters in the Burnham Building, Chicago, under the present name, completing all existing contracts, while Daniel H. Burnham will practice under the firm name of Daniel H. Burnham, Architect, with offices in the Railway Exchange Building, Chicago.

Illinois Architectural Societies Meet At Illinois Hostess House

With September 30 fixed upon by the Hostess Committee for a program dedicated to architecture and allied arts in Illinois, and the architects called upon to develop a fitting program carrying through from 11 A. M. to 10 P. M., the Illinois Society of Architects felt the necessity of shifting its September meeting from the 26th to the 30th. The Chicago Chapter, A. I. A., decided to set forward its October meeting to September 30 and the Central Illinois Chapter, A. I. A., joined the above architectural bodies in the September 30 meeting. The celebration took place in Illinois Host House at a Century of Progress.

Ernst C. von Ammon was the first speaker. In discussing his subject "Interior Decoration" he dwelt on the value of symmetry and in his pictures he again pointed out this feature. He pleaded for cooperation between architect and decorator.

Earl H. Reed, Jr., head of the Department of Architecture, Armour Institute of Technology, followed with "Illinois Pioneer Architecture." The subject is one Mr. Reed

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devoted himself to for some years. His plea is for the restoration and preservation of Greek Revival and other early essays in Illinois, found principally among old wallings.

At 2:30 P. M. Jens Jensen, wellknown landscape gardener, spoke, using beautifully colored slides. These dwelt most exclusively on native landscape and his plea was for cultivating native rather than exotic gardens.

At 3:30 P. M. came Alfonso Iannelli on "Applied Arts." Mr. Iannelli is a sculptor. He questioned the significance of the most Century of Progress sculpture and pointed to the unfinished Midway Gardens as a fine example of cooperation between architecture and allied arts.

At 4:30 Thomas E. Tallmadge, architect, Chairman Illinois State Art Commission, author and traveler, spoke on "Architecture of A Century of Progress." He traced exposition architecture with the materials used to create it from 1851, Crystal Palace Exposition in London which was of iron and glass, to the Centennial Exposition at Philadelphia of 1876 of brick and wood, to Chicago in 1893 of staff imitation of stone, to San Francisco in 1915 of staff, to Paris, 1925, still of stucco and staff, to the Century of Progress in 1933 where synthetic board was the element of walling. This synthetic board was a skin, impossible of being carved and moulded, but very susceptible to color. The Travel and Transport Building was likened to a spider; agriculture to a caterpillar; Hall of Science to a butterfly; the Federal Dome with its Hall of States to a gold bug; the General Exhibits building to a battalion of termite ants.

At 8 P. M. Professor Rexford Newcomb, Dean of the School of Fine Arts, University of Illinois, read a paper "Illinois' Contribution to American Architecture." Mr. Newcomb, true to his usual thoroughness, covered the field admirably in the fifty minutes he used. He began with an early tavern housed in a log cabin. The Greek Revival was alive in the 1830's and had its reflex in the modest houses built in Illinois, culminating with the first Springfield State House. From Springfield the speaker soon passed to Chicago, stressing hostelrys built, beginning with Saugash Hotel of about 1840, through the pre-Fire hotels followed by the post-Fire Tremont House, Sherman, Palmer and Grand Pacific, and culminating in the great caravansaries of today. He then took up the tall building devoted either to offices, warehouses or retail stores, first in masonry and then in steel; he spoke of Louis H. Sullivan's achievements; of the Chicago School, influenced by Sullivan. The town of Pullman was mentioned as a successful town-planning effort of 1880. No reference was made to home building in Chicago. The speaker then dwelt upon the part played by the University of Illinois in the teaching of architecture, mentioning the fact that the University of Illinois had the second school of architecture in the U. S. A., and mentioning such outstanding graduates as Henry Bacon, Clarence Blackall and Alfred Fellheimer. Dr. N. Clifford Ricker and other professors were remembered. The paper was followed by pictures on the screen of many of the subjects mentioned.

State Architect C. Herrick Hammond stated there was a plan afoot to screen the ground floor of the first Springfield State House (now the Sangamon County Court House, which in recent years has been raised and provided with a ground floor story that appears like a rusticated stylobate to the Greek design) by creating a mound all around the structure, and keeping a depressed area of adequate width for light around the newer lower story. It is hoped in this

way to restore the original effect of the building when viewing the ensemble from a distance.

Georgia Jesseph, in diaphanous robes, illustrated the poetry of motion in expressionistic dances.

Mrs. Paul Steinbrecher of the Hostess Committee gracefully thanked and felicitated the architects for their cooperation and read a long telegram from Governor Horner dwelling upon the State's achievements in architecture. One wondered at his intimate knowledge of the subject.

By this time the audience's thirst was almost irrepressible and Mrs. Steinbrecher's invitation to partake of frappé sandwiches and cakelets was seized upon with avidity.

Today it would be almost wholly a matter of individual taste to decide what seven architectural accomplishments of the United States are most unique and artistic and important to the greatest number of people. Such a list might be something like this: The Panama Canal, Radio City, the Empire State Building, Boulder Dam, the colossal statues which Gutzon Borglum is carving out of the living Dakota rock, the botanical gardens at Lincoln Park in Chicago, the bridge that will be built across the Golden Gate. Those works, as well as any others, may be the ones which a hundred years from now will be called the Seven Wonders of America.

—Joseph Auslander.

With deep regret the Illinois Society of Architects announces the death of its long-time member, John Lawrence Mauran of St. Louis, Mo., which occurred on September 23. Mr. Mauran was born in Providence, R. I., in 1866; studied architecture at M. I. T.; entered the office of Shepley, Rutan and Coolidge in Boston; later was at the head of their Chicago office during the building of the Chicago Public Library and Art Institute, following which he became the firm's resident partner in St. Louis. In 1900 he headed the firm of Mauran, Russell & Garden. The firm of Mauran, Russell & Crowell, St. Louis, has existed since 1911. It has been architect for many of St. Louis' foremost buildings. Mr. Mauran was president from its formation in 1925 of the St. Louis Memorial Plaza Commission, creating designs for public buildings about the Plaza. His firm was architect of Federal Reserve Bank, Railway Exchange, Globe Democrat, Southwestern Bell and Missouri Pacific Buildings in St. Louis, also hospitals, libraries, churches, banks. Galvez Hotel, Galveston; Rice Hotel, Houston came from his firm's office. Mr. Mauran was President of the American Institute of Architects 1916-1918.

Arthur Tappan North, well-known writer on architectural subjects, died at his home in New York City on August 16—age 69 years. He was born in Kewanee, Illinois, graduated in architectural engineering from the University of Illinois in 1888, was employed by Adler & Sullivan as engineer during the designing of the Chicago Auditorium. In more recent years he was consecutively engineering editor of the "American Architect," Director of Architectural Relations for the American Institute of Steel Construction, was on the editorial staff of the "Architectural Forum," a regular monthly contributor to the "Western Architect" until its demise, and an occasional contributor to the Monthly Bulletin, I. S. A. Personally well-known and beloved, he was a member of the American Institute of Architects, American Society of Civil Engineers, Architectural League of New York.

Chicago Chapter, A. I. A., September Meeting

Substituting for Eugene H. Klaber, President of the Chapter and now Chief of the Housing Technical Staff of the N. R. A., whose duties held him in Washington, Earl H. Reed, Jr., First Vice-President, presided at the first meeting of the Chapter year which occurred on September 12 at the Architects Club. The program was built around the successful Century of Progress exhibition setting of the American Radiator and Standard Sanitary Corporation with affiliated companies.

The first speaker after dinner was Charles K. Foster, Executive Vice-President, A. R. & S. S. Corporation. He told of the genesis of the plan of their exhibit, stating that by accident he had met Raymond Hood and had explained to him what was uppermost in his mind at the moment, namely, his Corporation's obligation to take part in the Century of Progress, that its products were such that would make no striking appeal to the mass of Fair visitors and that after more words Hood had exclaimed, "Why don't you build a garden of rest?" Foundation for the executed plan was laid when the Corporation ordered Hood to develop his ideas and submit a plan. Mr. Foster spoke of his Company's heating, air-conditioning and plumbing exhibits and invited his hearers to make that exhibit their headquarters.

Homer Linn of the same Corporation was the next speaker who said that the public was absorbed in air-conditioning until they heard the cost. He cited one example of a lady having a large house who approached him saying she wanted all the rooms air-conditioned. Further discussion and deliberation reduced this feature of the heating and comfort installation to conditioning two rooms.

Mr. Linn was followed by Chicago's nature lover and garden expert, Jens Jensen. With force and native eloquence he referred cynically to the landscaper or landscapist or landscape architect as misnomers—operators under whom nature was often twisted and distorted into forms it should not take. Clipping of trees and bushes and hedges he deplored and the making of a mountain garden in a prairie country he condemned. To make a prairie garden with its still water and indigenous plants and trees and shrubs in this our prairie country, he upheld as a much higher and better form of art. To architects he referred approvingly as "half fish and half fowl!"

The last speaker was Herbert Schmidt of the firm of Vitale & Geiffert, landscape architects of the Garden of Rest. He said the design executed was a collaboration between Hood and Geiffert. He described the difficulties encountered and the many precautions necessary to bring to this newly made land of the Fair and to make grow in what he said was heavy soil the maples, elms, lombardy poplars and thorns that combine, together with the cascaded water basins to make the Garden of Rest so successful a composition.

The speech-making concluded, the party, provided with complimentary admissions by the American Radiator Corporation, migrated through the gates to this Garden of Rest. The company was then assembled and photographed. After this they wandered through the garden into the two buildings and five kiosks where the Corporation's products are displayed. Everywhere courteous and intelligent vice-presidents and salesmen were on hand to enlighten the visitors on the products shown. The gates to this exhibit were closed to the public during the visit of the Chapter and its guests.

Design of Modern Passenger Trains

An outstanding concession show at A Century of Progress, much talked of by those having seen it, is "Wings of a Century." This show is the dramatization of the story of transportation beginning with the first white man coming to this country down to the present time. It is really a pageant of human beings with the instruments of transportation used in the period portrayed. The sailing vessel brings the settlers. They travel afoot or on horseback. Later comes the ox cart, the covered wagon, the clipper ship, the canal boat on the Erie Canal, the steamboat, the beginning of the railway, the automobile from its inception to the present day, and flying.

The people in the pageant are drawn from the dramatic school of the Art Institute of Chicago and the two heralds—a man and a woman alternating, with magnificent voices and knowledge to use them effectively—tell the story to the fascinated listeners. The performance closes with a huge plane rolled onto the stage before the spectators, followed by its wings rolled separately and then attached to the plane's body before the audience, while at the same time the most elephantine locomotive with tender perhaps ever built rolls across the center, virtually blotting out the previously arrived plane. The abnormal weight of this locomotive, which must run to thousands of tons, furnishes food for thought.

Passing out and crossing the main road, the spectator has before him a number of completely equipped crack trains shown by American railway companies, as well as the famous Flying Scot from England, which travels nightly from London to Edinburgh, the fastest

train in England and one of the fastest trains in the world. There is always a long queue of people waiting to enter and pass through these trains.

Within the Travel and Transport building the Pullman Company exhibits its first sleeping car—a strange, wooden, over-elaborate, tight and oppressive contraption that is of great historic interest. Adjoining this the same company exhibits its most modern products—aluminum coaches, including sleepers, chair and dining cars with all the latest conveniences and finished and furnished in the modern taste.

If you eavesdrop among the visitors to these trains, you can variably hear prognostications regarding the future of railroads and passenger travel by rail in this country. Visitors commonly speculate of the two trains now building in this country that aim to overcome the evils which have in recent years burdened so heavily the management of American railways, in that they were hauling tons of rolling-stock to carry corresponding pounds of passengers. The visitors have read and seen pictures in the newspapers of the streamlined Union Pacific train now building in Pullman shops, and the Burlington train building in some other works.

The model for the new architecture of railroad trains is found in Germany, where the fastest train in the world is in regular service between Berlin and Hamburg. It is the German Railroad Company's new electrically driven train, without locomotive, which carries 102 passengers and reaches a maximum speed of 99.3 miles an hour, averaging from 74.55 to 77.66 miles on the run of 179.21 miles. In trial runs it has made 106 miles. The new train leaves Berlin at 8:02 A. M., arriving at Hamburg at 10:20 A. M., and returns from Hamburg at 3:16 P. M. arriving at Berlin at 5:36 P. M.

The fare is 23 Marks in each direction, the same as that charged for the present FD-train. It is popularly called the "Flying Hamburger."

This new flying wonder's speed is made possible by reducing to a minimum the resistance of the air which increases directly with the square of the speed. In order to find the most practical form, specially constructed models were blown through the so-called "wind canal" used for testing Zeppelin models. As a result of these tests the ends of the train were sharply rounded, the tops at each end were curved sharply downward, and the running gear was aproned nearly down to the rails with sheet iron. Thus a streamline construction was arrived at. Nothing was permitted to project, the only indispensable projections being a buffer below the two headlights which look like great eyes, and the exhaust pipe at the head, which resembles the horn of a unicorn.

In the effort to reduce the resistance of the air, the body of the train itself had to be made as light as possible. Therefore the motors, in contrast with the American construction of electrically driven trains, were placed in the running gear. The weight of the train was reduced to the extreme possible limit. It is really a double coach of two halves, with two axles at each end and a common axle in the middle. Two Diesel motors manufactured by the Maybach Motor Works generate 410 horsepower, which is communicated electrically to the driving wheels. The technical engineering wonder is the fact that both motor and electrical generator are placed in the running gear together, an achievement which would have been regarded as impossible only ten years ago.

Only the employment of the 12-cylinder Diesel-Maybach motors and experiments with models in the wind canal of the Zeppelin Airship Works made it possible for the Gortitz car shops (the Waggon- und Maschinenbau A. G., known as the "Wumag") to produce this new flyer.

A unique and most pleasant feature of this train is the bar which is precisely in the middle. It is just large enough for the barkeeper. It is, like the kitchens in the "Mitropa" dining-cars, a wonder of room economy. One wonders whence the barkeeper conjures up all the liquors, mineral waters, beer, wine, and sandwiches, coffee, tea and bouillon, which are to be had here a la carte. One wonders also at the dexterity of the man who can fill a liqueur glass at a speed of nearly 100 miles an hour without spilling a drop.

Ninety-nine miles an hour seems quite as matter of fact as do 60 miles in an ordinary express train. The landscape flits by and the names of the stations can hardly be read. But there is never the least feeling of insecurity, and one can sleep peacefully for all dangers of accidents has been reduced to as near the vanishing point as is humanly conceivable. The Reichsbahn has provided four different possibilities of applying brakes to the train. Even if the motorman or his assistant should pass an adverse signal, the train would be automatically brought to a stop by an inductive braking system worked from the signal.

This automatic electric braking begins at the first warning signal, which stands three-quarters of a mile before the final stop signal, and compels the motorman to reduce his speed so that the train comes to a stop before the final signal is reached. But if he should nevertheless run past this signal, a second electric impulse applies an emergency brake, which acts immediately.